

organs of fructification are placed directly on the filament, radiating from one spot; the oogonia are much more oblique, often concave inside. When there are two oogonia and one antheridium, there is a certain resemblance to *V. geminata*; but the slender radiate pedicels make it amply distinct; the forms with many oogonia and antheridia are quite unlike anything else. The largest number of pedicels observed in one group is twelve; four bearing antheridia, eight oogonia.

MALDEN, MASSACHUSETTS.

EXPLANATION OF PLATE 76.

Fig. 1, *Vaucheria longipes*.

Fig. 2, *V. Gardneri*, group of four oogonia and one antheridium.

Fig. 3, " " group of two " " " "

THREE PLANTS FROM MAINE.

ORA W. KNIGHT.

DURING the fall of 1906 while collecting along the shore near Otter Cliffs, Mount Desert Island, I found a very peculiar form of *Juniperus horizontalis* Moench, with lobed fruit, growing in an extensive patch by itself, while elsewhere the typical plant prevailed. As this plant seems worthy of a name I propose to call it:—

JUNIPERUS HORIZONTALIS Moench, forma **lobata**, forma nov.

Characters:—differs from *J. horizontalis* in having more elongate fruit which is strongly two-, three- or even four-lobed at the apex. The fruit when mature is pale green in color, slightly tinged with bluish, or occasionally pale greenish blue. Type locality: rocky cliffs along shore, Otter Cliffs, Mount Desert Island, Maine. Type No. 5311 O. W. K., October 3, 1906.

For two seasons I have had under observation a very peculiar hybrid *Pyrus* whose exact affinities were open to some slight doubt at first, but as the question now seems satisfactorily settled I propose to call it:—

***Pyrus Americana* × *arbutifolia*, comb. nov.¹**

¹[Hybrids ascribed to the same parentage have been observed in cultivation. See, for example, Schneider, Ill. Handb. d. Lanbholzk. i. 677.—Ed.]

Shrub about 1 meter tall; foliage very variable, glabrous above, pubescent beneath even when mature; the leaves either simple, oblong-ovate and dentate or entire, or variously lobed, or compound and composed of five to seven oblong-ovate leaflets with margins dentate or entire; peduncles and pedicels pubescent; cymes decomposed, fifteen- to thirty-flowered, the flowers not appreciably different from those of *Pyrus Americana* (Marsh.) DC.; fruiting pedicels and young twigs pubescent; mature twigs glabrous, similar in color to those of *Pyrus Americana*; fruit only sparingly maturing, a majority of the blossoms not being fertilized, red, 6 mm. in diameter, not distinguishable externally from that of *Pyrus Americana*; the seeds very abortive, showing no embryos in the case of several examined. Fruit ripe and falling August 12, 1906. Type locality: growing associated with supposed parents, Bicycle Path, Bangor; flowering specimens June 9, 1905; fruit August 12, 1906. Type specimen No. 5224 O. W. K.

Along the shores of the Penobscot at Bangor, growing near the type of *Salix coactilis* Fernald, is a shrub, which at certain stages of growth I have been inclined to refer to *S. coactilis* although later in the season it more nearly resembles *S. cordata* Muhl. After study of this peculiar shrub for several seasons its true affinities seem well established and I propose to call it:—

***Salix coactilis* × *cordata*, hyb. nov.**

Characters:—Shrub about 2 meters tall; branchlets reddish green to blackish and somewhat quadrangular; youngest branchlets gray and pubescent to puberulent; leaves oblong to lance-ovate, long-acuminate, petioled, at first reddish green to red beneath and pubescent, especially on mid-rib and veins, above deeper red, pubescent on the mid-rib at least, becoming green with age but always paler below and remaining pubescent on mid-ribs above and below, in maturity 6 to 12 cm. long, 2 to 4 cm. broad, rather finely and somewhat irregularly glandular-dentate; petioles pubescent even in maturity; stipules semi-ovate, glandular-toothed, persistent on the younger branchlets, 4 to 10 mm. long; aments on short leafy peduncles, expanding with the leaves, in anthesis 1 to 2.5 cm. long, in fruit 2 to 4 cm. long, 7 mm. thick; scales oblong or obovate, blunt at tip, blackish, very pubescent with silky hairs longer than blade; capsule glabrous, conic-subulate, pedicelled, about 3 mm. long, the pedicel about 1 mm. long; style about 1 mm. long; stigma short, two-lobed; capsules generally abor-

tive, but occasionally producing one or two fertile seed. Type locality: bank of Penobscot River, Bangor, May 16 and June 7, 1904. (No. 35 O. W. K. Type). In general appearance the plant is almost exactly intermediate between *S. cordata* and *S. coactilis*, the aments having a marked resemblance to those of *S. cordata*, while in other characters the shrub resembles *S. coactilis*.

BANGOR, MAINE.

SALICORNIA EUROPAEA AND ITS REPRESENTATIVES IN EASTERN AMERICA.

M. L. FERNALD.

THE annual Saltwort or Samphire of our salt marshes, which has passed very generally under the name *Salicornia herbacea*, presents, upon the coast of New England and eastern Canada, three strongly marked tendencies to which it is here proposed to call attention. But first we must consider briefly the nomenclatorial status of the species, which has been recently called to mind by Messrs. Britten and Rendle of the British Museum.¹

Linnaeus, in the first edition of the *Species Plantarum* (1753), enumerated four species of *Salicornia*, with the first of which alone we are here concerned. This was

“1. SALICORNIA articulis apice crassioribus obtusis. *europaea*.
Mat. med. 8. *herbacea*.

Salicornia herbacea. *Fl. suec.* 1.

Salicornia annua. *Sauv. monsp.* 7.

Salicornia. *Hort. cliff.* 490. *Roy. lugdb.* 205.

β *Salicornia semipervivens*. *Sauv. monsp.* 7. *fruticosa*.

Kali geniculatum majus. *Bauh. pin.* 289.

Habitat in Europæ litoribus maritimis. h ☉

Conferantur annua & sempervirens utrum specie distincta?”²

In the 2d edition (1763) of the *Species*, Linnaeus entirely discarded the name *Salicornia europaea* and published the name *S. herbacea* for

¹ Britten & Rendle, *Journ. Bot.* XLV. 104 (1907).

² L. Sp. 3 (1753).